

**SECRET**Contract 

25X1

FY-66 Quarterly Report No. 4

PAR 233

31 May 66

SUBJECT: Zoom (6X to 60X) Projection Lens for Monochromatic Light

## TASK/PROBLEM

1. Investigate the possibility of designing a 6X to 60X Zoom Projection Lens for Monochromatic Light.

## DISCUSSION

2. Following a visit by the customer's representative on 28 Feb 66, our lens designers found that the use of a "light flint" glass in place of the "dense flint" considered previously could increase the system transmittance to the order of 50% at 3560A. The possibility of using this glass is provided by attempting correction of the system for a narrower spectral range (3600A to 3700A) than previously considered.

3. On 22 Mar 66, a contractor's representative visited the customer's facility to review this project, among others. It was pointed out in that conference that the UV-sensitive screen proposed for use with this lens is not an amplifying (image-intensifier) screen; hence, the energy radiated from the screen as an image is supplied entirely by the projected energy upon the screen. In this case, the large f-number (small aperture) of the proposed zoom system as observed from the screen may produce an image too dim for photo-interpretation use, even with transmittance at 50%.

4. The customer has directed the contractor to do no further work on this project until directed to do so.

## PLANNED ACTIVITY

5. No further work will be done on this project until the customer so instructs.

DDR-DUPE

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<b>GROUP 1</b> EXCLUDED FROM AUTOMATIC DOWNGRADING AND DECLASSIFICATION
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